

July 2003

NO CHILD LEFT BEHIND ACT

More Information Would Help States Determine Which Teachers Are Highly Qualified



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Highlights

Highlights of [GAO-03-631](#), a report to Congressional Requesters

Why GAO Did This Study

In December 2001, Congress passed the No Child Left Behind Act (NCLBA). The act required that all teachers of core subjects be highly qualified by the end of the 2005-06 school year and provided funding to help states and districts meet the requirement. In general, the act requires that teachers have a bachelor's degree, meet full state certification, and demonstrate subject area knowledge for every core subject they teach. This report focuses on the (1) number of teachers who met the highly qualified criteria during the 2002-03 school year, (2) conditions that hinder states' and districts' ability to meet the requirement, and (3) activities on which states and districts were planning to spend their Title II funds. GAO surveyed 50 states and the District of Columbia and a nationally representative sample of districts about their plans to implement the requirement. GAO also visited and interviewed officials in 8 states and 16 districts to discuss their efforts to implement the law.

What GAO Recommends

To help states determine which teachers are highly qualified and the actions they need to take to meet the requirement, GAO recommends that the Secretary of Education provide more information to states, especially on ways to evaluate the subject area knowledge of current teachers. The Department of Education provided written comments on a draft of this report and generally agreed with GAO's recommendation.

www.gao.gov/cgi-bin/getrpt?GAO-03-631.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Marnie S. Shaul, 512-7215, shaulm@gao.gov.

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More Information Would Help States Determine Which Teachers Are Highly Qualified

What GAO Found

GAO could not develop reliable data on the number of highly qualified teachers because states did not have the information needed to determine whether all teachers met the criteria. Officials from 8 states visited said they did not have the information they needed to develop methods to evaluate current teachers' subject area knowledge and the criteria for some teachers were not issued until December 2002. Officials from 7 of 8 states visited said they did not have data systems that could track teacher qualifications for each core subject they teach.



Source: U.S. Department of Education.

Both state and district officials cited many conditions in the GAO survey that hinder their ability to have all highly qualified teachers. State and district officials reported teacher pay issues, such as low salaries and lack of incentive pay, teacher shortages, and other issues as hindrances. GAO's survey estimates show that significantly more high-poverty than low-poverty districts reported hindrances, such as little support for new teachers. Rural district officials cited hindrances related to their size and isolated locations. State officials reported they needed assistance or information from Education, such as in developing incentives to teach in high-poverty schools, and Education's strategic plan addresses some of these needs.

To help meet the requirement for highly qualified teachers, state survey respondents reported they planned to spend about 65 percent of their Title II funds on professional development activities authorized under Title II, and districts planned to spend an estimated 66 percent on recruitment and retention. Both state and district officials planned to spend much larger amounts of funds from sources other than Title II funds on such activities. High-poverty districts planned to spend more Title II funds on recruitment and retention than low-poverty districts. State and district officials visited said that most activities were a continuation of those begun previously.

Contents

Letter		1
	Results in Brief	2
	Background	5
	Many States Were Uncertain about Numbers of Highly Qualified Teachers	10
	State and District Officials Reported Many Conditions as Hindrances to Meeting the Law	13
	To Help Teachers Meet the Requirement States Planned to Spend Most Title II Funds on Professional Development Activities, and Districts Will Spend Most on Recruitment and Retention Activities	23
	Conclusions	29
	Recommendation for Executive Action	29
	Agency Comments and Our Evaluation	29
Appendix I	Scope and Methodology	31
Appendix II	Activities on Which States Can Spend Title II, Part A Funds	37
Appendix III	Activities on Which Districts Can Spend Title II, Part A Funds	38
Appendix IV	Comments from the U.S. Department of Education	39
Appendix V	GAO Contacts and Staff Acknowledgments	42
	GAO Contacts	42
	Staff Acknowledgments	42

Tables

Table 1: Federal Criteria for a Highly Qualified Teacher	7
Table 2: Estimated Percentages of Districts That Will Have Difficulty Meeting the Requirement for Highly Qualified Teachers by Grade Level and Poverty	12
Table 3: Number of States Reporting on Conditions That Hinder Their Ability to Meet the Requirement for Highly Qualified Teachers (Ranked from Highest to Lowest)	17
Table 4: Estimated Percentages of Districts Reporting on Conditions That Hinder Their Ability to Meet the Requirement for Highly Qualified Teachers (Ranked from Highest to Lowest)	19
Table 5: Estimated Percentages of High- and Low-Poverty Districts with Significant Differences in the Hindrances to Meeting the Requirement	21
Table 6: Estimated Percent of Spending Title II Funds by Activities for All Districts, High-Poverty Districts, and Low-Poverty Districts	26
Table 7: Population and Sample by Stratum	32
Table 8: Sample Estimates Compared to Population Values	34
Table 9: Population and Sample by Region	35
Table 10: Title II, Part A State Activities	37
Table 11: Title II, Part A District Activities	38

Figures

Figure 1: Education's Assistance to States During Calendar Year 2002	9
Figure 2: Planned Spending of Title II Funds by Reporting States	24
Figure 3: Sources of Funds for Planned Spending by States on Title II Activities	25
Figure 4: Estimated Spending of Title II Funds as a Percentage of Total Funds by Activities for All Districts, High-Poverty Districts, and Low-Poverty Districts	28
Figure 5: State Survey Respondents	31

Abbreviations

CCD	Core of Common Data
CCSSO	Council of Chief State School Officers
CMSA	Consolidated Metropolitan Statistical Area
LEA	Local Education Agency
MSA	Metropolitan Statistical Area
NCLBA	No Child Left Behind Act

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United States General Accounting Office
Washington, DC 20548

July 17, 2003

The Honorable Edward M. Kennedy
The Honorable Jeff Bingaman
United States Senate

In December 2001, Congress passed the No Child Left Behind Act (NCLBA), which, among other things, focused attention on closing the achievement gaps among various groups of students. Recently, a body of research has shown that quality teachers play a significant role in improving student performance. However, research has also shown that many teachers, especially those in high-poverty and rural districts,¹ were not certified and lacked knowledge of the subjects they taught. NCLBA established the requirement that all teachers be highly qualified for each core subject they teach by the end of the 2005-06 school year.² The criteria for meeting this requirement vary somewhat by grade level and experience but generally require that teachers have (1) a bachelor's degree, (2) state certification, and (3) subject area knowledge for each core subject they teach. This represents the first time the federal government has established specific criteria for teachers. Title II, Part A, of NCLBA replaced the Eisenhower Professional Development and Class Size Reduction programs with the Teacher and Principal Training and Recruiting Fund and Congress appropriated \$2.85 billion to help states and districts meet the requirement. In addition, Title II directed these funds to be spent on specific activities to help states and districts recruit, retain, and develop highly qualified teachers. The Department of Education (Education) administers Title II and is responsible for oversight of states' implementation of NCLBA.

Given the need for states and districts to meet the requirement for highly qualified teachers by the end of the 2005-06 school year, you asked us to determine what they were doing to have their teachers meet the requirement. Specifically, this report focuses on the (1) number of teachers who met the highly qualified teacher criteria during the 2002-03 school year, (2) conditions that hinder states' and districts' ability

¹In this report, the term "district" refers to local education agencies.

²Core subjects include English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

to meet the requirement, and (3) activities on which states and districts were planning to spend their Title II funds.

In conducting our work, we surveyed 50 states and the District of Columbia. We obtained responses for 37 of these 51 surveys and reported the results as representing only those that responded. The student enrollment for the responding states represented 85 percent of total student population in kindergarten through 12th grade. In addition, we surveyed a nationally representative sample of 830 school districts. We received a response from 511 or 62 percent. We compared relevant characteristics of these respondents to the universe of districts and found them to be similar, which along with the response rate allowed us to report national estimates.³ For our comparisons of high- and low-poverty districts, we included responding districts that had 70 percent or more of their students approved for free and reduced-price meals as high-poverty and those with 30 percent or less of their students approved for free and reduced-price meals as low-poverty. We visited and interviewed officials in 8 states selected with a range of characteristics that might affect their ability to meet the requirement—California, Connecticut, Illinois, Iowa, Maryland, North Carolina, Delaware, and Wyoming. We visited 2 districts in each of the states and 1 school in each district. We interviewed U.S. Department of Education officials, and officials from professional organizations and unions that represent teachers. Additionally, we analyzed the legislation, related reports, and relevant documents. See appendix I for detailed information on the methodology. We conducted our work from July 2002 through May 2003 in accordance with generally accepted government auditing standards.

Results in Brief

We could not develop reliable data on the number of highly qualified teachers because states did not have the information needed to determine whether all teachers met the criteria. During our visits state officials did not know the criteria for some of their teachers. Education's draft guidance on the criteria for teachers in alternative certification programs changed between June and December of 2002, which meant that states had to reassess their teachers' qualifications. Guidance for special education teachers was not available until December 2002, and it was contained in an

³All percentage estimates produced from the district survey have sampling errors of no more than plus or minus 10 percentage points, at a 95 percent confidence level, unless otherwise noted.

appendix to the Title I regulations, but not in the federal regulations. Also, states did not have the information they needed to develop methods to evaluate subject area knowledge of their current teachers. In our survey, 32 of 37 state respondents said that they needed clear and timely guidance from Education. Additionally, officials from 7 of the 8 states we visited said they did not have data systems that could track teacher qualifications by subject, which they needed to determine if a highly qualified teacher taught each core subject. One official added a comment to the survey that said the state data system on teachers “was designed years ago for state certification purposes...[and] has not yet been updated to include all NCLBA criteria for teachers.” Some state officials we interviewed also expressed reservations about changing their data systems before complete guidance was issued. Furthermore, 6 of the 8 state officials were reluctant to say that their certified teachers might not be highly qualified because they believed it would harm teacher morale. Thus, we concluded that the survey data related to the number of highly qualified teachers would not likely be reliable.

Both state and district officials cited many conditions that hinder their ability to have all highly qualified teachers. Many state officials reported issues related to teacher pay, such as low salaries, lack of incentive pay programs, and a lack of career ladders as hindrances. For example, 32 of the 37 state officials responding to our survey said that teacher salaries were low compared with other occupations. During our visits officials said that salary issues particularly hindered their efforts to recruit and retain math and science teachers. Twenty-three of the 37 state officials reported teacher shortages in high need subject areas—mostly math, science, and special education. During the late 1990s, there was an increase in demand for workers with math and science backgrounds, especially in information technology, and these occupations generally paid higher salaries than teaching. Other hindrances cited by state officials included few programs to support new teachers, a lack of leadership from principals, and union agreements. Our survey estimates show that salary issues were also hindrances for the majority of the districts, and about 20 percent of all districts cited teacher development conditions such as (1) weak technology training for teachers, (2) few alternative certification programs, and (3) professional development programs of too short a duration to improve teacher quality. In addition, significantly more high-poverty than low-poverty districts identified some conditions as hindrances, according to our survey responses. For example, an estimated 30 percent of high-poverty districts compared to 6 percent of low-poverty districts cited few programs to support new teachers. Officials in rural districts we visited and who commented on the survey said they faced

unusual conditions because some of them were very small, isolated, or had only one or two teachers in total at some schools. While many of the hindrances that state and district officials reported could not be addressed by Education, at least half of the state survey respondents indicated that Education could be more helpful. Specifically, they said they needed more information on, or assistance with, professional development programs, best practices related to teacher quality, and incentives for teachers to teach in high-poverty schools. Education has identified several steps it will take in its 2002-07 strategic plan related to these issues.

Title II provided funds to help meet the requirement for highly qualified teachers, and state survey respondents said they planned to spend most of their Title II funds on professional development activities while districts planned to spend the majority of their funds on recruitment and retention activities authorized under Title II. Generally, state educational agencies could use up to 2.5 percent of the state's Title II funds for authorized state activities. State officials reported they planned to spend 65 percent on professional development activities. These activities could help teachers enhance their subject area knowledge and complete state licensing requirements to meet the criteria for highly qualified teachers. States planned to spend much larger amounts of other federal and state funds than Title II funds on authorized state activities. For example, states reported that 85 percent of the total funds they planned to spend on professional development activities would come from other federal and state funds. Districts received about 95 percent of their state's Title II funds for authorized district activities. From our survey we estimated that districts planned to spend about two-thirds of their Title II funds on activities to help recruit and retain highly qualified teachers, with the remaining funds on activities for professional development. High-poverty districts planned to spend a larger percentage of Title II funds on recruitment and retention activities than low-poverty districts. For example, high-poverty districts planned to spend 77 percent of their Title II funds for recruitment and retention while low-poverty districts planned to spend 59 percent. Recruitment and retention activities, such as establishing incentive pay programs and reducing class sizes, could help attract more highly qualified teachers to schools. Survey results also show that districts planned to spend much larger percentages of other federal, state, and local funds than Title II funds on authorized Title II activities. For example, an estimated 80 percent of the total funds all districts planned to spend on professional development came from other federal, state, and local funds. During our visits, both state and district officials said that most activities were a continuation of those begun in previous years.

In order to help states meet the requirement for highly qualified teachers by the end of the 2005-06 school year, we recommend that the Secretary of Education provide more information on methods to evaluate subject area knowledge of current teachers.

Education provided written comments on a draft of this report including information on the guidance for special education teachers that we incorporated as appropriate. Additionally, Education indicated that it plans to take steps to address our recommendation. Our evaluation of their comments is in the report and Education's comments are in appendix IV.

Background

Recently, a body of research has shown that quality teachers are significant to improving student performance. For example, a 1996 study by Sanders and Rivers⁴ examined the effect of teacher quality on academic achievement and found that children assigned to effective teachers scored significantly higher in math than children assigned to ineffective teachers. Research has also shown that many teachers, especially those in high-poverty and rural districts, were not certified and lacked knowledge of the subjects they taught. For example, a report from The Education Trust found that in every subject area, students in high-poverty schools were more likely than other students to be taught by teachers without even a minor in the subjects they teach.⁵

States are responsible for developing and administering their education systems and most have delegated authority for operating schools to local governments. States and local governments provide most of the money for public elementary and secondary education. In 2002, Education reported⁶ that 49 percent of the revenue for education was from state sources, 44 percent from local sources, and 7 percent from federal sources. Therefore, it is mostly state and local funds that are used to cover most of the major expenses, such as teacher salaries, school buildings, and transportation. Although the autonomy of districts varies, states are

⁴Sanders, W. and Rivers, J., *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement*. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center, November, 1996.

⁵Kati Haycock, *Closing the Achievement Gap* (The Education Trust, March 2001).

⁶National Center for Education Statistics, U.S. Department of Education, *The Condition of Education 2002*.

responsible for monitoring and assisting their districts that, in turn, monitor and assist their schools.

The federal government plays a limited but important role in education. The Department of Education's mission is to ensure equal access to education and promote educational excellence throughout the nation by, among other things, supporting state and local educational improvement efforts, gathering statistics and conducting research, and helping to make education a national priority. Education provides assistance to help states understand the provisions or requirements of applicable laws, as well as overseeing and monitoring how states implement them. With the passage of the No Child Left Behind Act, on January 8, 2002, the federal government intensified its focus on teacher quality by establishing a requirement in the act for teachers across the nation to be "highly qualified" in every core subject they teach by the end of the 2005-06 school year.⁷

While the act contains specific criteria for highly qualified teachers by grade and experience levels, in general, the act requires that teachers: (1) have a bachelor's degree, (2) have state certification, and (3) demonstrate subject area knowledge for each core subject they teach. Table 1 lists the specific criteria by grade and experience levels as defined in the act.

⁷Title I of NCLBA requires that every state that accepts Title I funds must ensure that all their teachers meet the requirement. All states and the District of Columbia have accepted the funds. Title I of NCLBA is designed to help educate disadvantaged children—those with low academic achievement attending schools serving high-poverty areas. Title I was appropriated funding of over \$10 billion in fiscal year 2002.

Table 1: Federal Criteria for a Highly Qualified Teacher

Grade level and experience	Federal criteria
Any public elementary school or secondary school teacher.	Has obtained full state certification as a teacher (including alternative certification) or passed the state teacher licensing examination and holds a license to teach in the state; however, when teaching in a charter school, ^a the teacher may not be certified or licensed if the state does not require it. Further, the teacher has not had certification or licensure requirements waived on emergency, temporary, or provisional basis.
Elementary school teacher new to the profession.	Holds at least a bachelor’s degree; and has passed a rigorous state test to demonstrate subject knowledge and teaching skills in reading, writing, math, and other areas of the basic elementary school curriculum (these tests may be included in state certification or licensing tests).
Middle or secondary school teacher new to the profession.	Holds at least a bachelor’s degree and has passed a rigorous state academic subject test in each of the academic subjects in which the teacher teaches (this may be the state certification or licensure test) or for each academic subject taught, the teacher has successfully completed an academic major, a graduate degree, coursework equivalent to an undergraduate academic major, or advanced certification or credentialing.
Elementary, middle, or secondary teacher not new to the profession.	Has met the above standards for new elementary, middle, and secondary school teachers or demonstrates competence in all the academic subjects in which the teacher teaches based on a high objective, uniform state standard of evaluation that (1) is set by the state for both grade appropriate academic subject matter knowledge and teaching skills; (2) is aligned with challenging state academic content and student academic achievement standards and developed in consultation with core content specialists, teachers, principals, and school administrators; (3) provides objective, coherent information about the teacher’s attainment of core content knowledge in the academic subjects a teacher teaches; (4) is applied uniformly to all teachers in the same academic subject and the same grade level throughout the state; (5) takes into consideration, but not be based primarily on, the time the teacher has been teaching in the academic subject; (6) is made available to the public upon request; and (7) may involve multiple, objective measures of teacher competency.

Source: NCLBA, Pub.L. No. 107-110, section 9101(2002).

^aCharter schools are public schools that are exempt from a variety of local and state regulations.

For Title II, Part A of the act, Congress appropriated \$2.85 billion to the Teacher and Principal Training and Recruiting Fund in fiscal year 2002—about \$740 million more than states received in fiscal year 2001 under the previous two programs that it replaced—the Eisenhower Professional Development and Class Size Reduction programs. The purpose of the fund is to increase student academic achievement by providing support for states and districts to implement authorized activities cited in Title II to help them meet the requirement for highly qualified teachers. (See apps. II and III for state and district authorized activities.)

States had to complete an application in order to receive funds. All applications were due by June 2002, and states received the funds by August 2002. The funds were to be distributed according to the formula defined in the act. Specifically, states and districts received an amount

equal to what they received for fiscal year 2001 under the two previous programs. The additional \$740 million was distributed to states and districts based on the number of families with children ages 5 to 17 who had incomes below the poverty threshold⁸ and the relative population of children ages 5 to 17. The act requires states to ensure that districts target funds to those schools that have the highest number of teachers who are not highly qualified, the largest class sizes, or have been identified as in need of improvement.

To help states understand and implement the new law, Education took a number of actions. The department established a Web site, developed an application package for the formula grant program, issued draft guidance, and held informational conferences for states and districts. Figure 1 summarizes Education's assistance to states.

⁸For 2002, the poverty threshold was \$18,556 annually for a family of four.

Figure 1: Education's Assistance to States During Calendar Year 2002

<u>Date</u>	<u>Events</u>
April	NCLBA Web site went online
May	Final Rule issued on how to apply for Title II, Part A Funds
June	Title II, Part A draft guidance issued First Annual Teacher Quality Evaluation Conference held, during which the draft guidance was discussed
October	Regional conferences held, during which Education officials reviewed the authorized activities listed in Title II, Part A and the criteria for highly qualified teachers
December	Title II, Part A draft guidance reissued Final Title I Regulations issued that provide highly qualified criteria for some categories of teachers including those who are currently teaching, newly hired and in alternative certification programs; with an appendix discussing requirements for special education teachers

Source: GAO analysis.

In June 2002, Education issued draft guidance entitled “Improving Teacher Quality State Grants” which has served as Education’s principle form of assistance to states. In December of 2002, Education expanded and modified the draft guidance and issued final regulations on NCLBA that included some criteria related to the requirement for highly qualified teachers. Education does not plan to issue a final version of its draft guidance; instead, the draft includes the statement that it “should be viewed as a living document” that will be updated (1) as new questions arise, (2) if there is a change in the program statute that requires modification, or (3) when Education determines that more information would be helpful.

Many States Were Uncertain about Numbers of Highly Qualified Teachers

In-depth discussions with officials in 8 states revealed that they could not determine the number of highly qualified teachers with accuracy because of one or more factors. All state officials said they did not know the criteria for some of their teachers because Education's draft guidance changed and was not complete. Officials also did not have all the information they needed to develop methods to evaluate subject area knowledge for their current teachers. Accordingly, officials in all of the states interviewed and nearly all surveyed said they needed complete and clear guidance before they could comply with the law. Most of the states we visited also did not have data systems that could track teacher qualifications by core subject taught, which they would have to do to ensure that teachers were teaching only those subjects for which they had demonstrated subject area knowledge. Finally, many state officials we visited were reluctant to say that their certified teachers might not be highly qualified.

States Did Not Have Complete or Consistent Criteria to Determine the Number of Highly Qualified Teachers

During our review, Education changed its criteria for teachers who were in alternative certification programs and it reissued the draft guidance to qualify only teachers in certain programs.⁹ The revised draft guidance stated that only those teachers enrolled in alternative certification programs with specific elements, such as teacher mentors, would be considered highly qualified. As a result, state officials had to recount this group of teachers by determining which alternative certification programs met the standard and then which teachers participated in those programs. In one state we visited, there were about 9,000 teachers in alternative certification programs and all were considered highly qualified until the revised draft guidance was issued. As of May 2003, an official said she was still trying to determine the number of teachers who were highly qualified.

Also during our review, state officials were uncertain about the criteria for special education teachers. The draft guidance that was available during most of our visits did not address special education teachers. As a result, state officials could not know, for example, whether a special education

⁹Many states have alternate routes to certification, referred to here as alternative certification programs, that allow an individual who has a bachelor's degree from a college or university but who does not hold a degree in education, to receive a license to teach. Alternative certification programs range from those that place people in classrooms immediately to longer programs that delay placing people in classrooms until they have completed course work and received a mentor. While these programs vary within and among states, nearly all states have some type of alternative to the traditional path of majoring in education in order to become a teacher.

teacher teaching math and reading would have to demonstrate subject area knowledge in both or neither of the subjects. For school year 1999-2000, special education teachers represented about 11 percent of the national teacher population,¹⁰ so that, on average, state officials were unable to determine whether at least a tenth of their teachers met the highly qualified criteria. In some districts, special education teachers represented a larger portion of the workforce. For example, in one high-poverty urban district that we visited, special education teachers were 21 percent of their teachers. Education issued final Title I regulations on December 2, 2002, with an appendix that discussed the highly qualified requirements for special education teachers, among other things. However, the requirements are not discussed in the federal regulations nor are they discussed in the Title II draft guidance that was issued December 19, 2002. In addition, as of March 2003 some officials still had questions about the requirements. Perhaps because the guidance was issued in an appendix, it was not given the prominence needed to ensure that all officials would be aware of the information.

Furthermore, neither Education's draft guidance nor its regulations provided more information than the law to help state officials develop methods other than tests to evaluate their current teachers' subject area knowledge. The law allows states to use a "high, objective uniform state standard of evaluation" instead of a test. Education's draft guidance repeated the language of the law, but provided no further interpretation. In addition, Education officials said they would review states' implementation of this provision when they conduct compliance reviews and then determine if the state evaluation is in compliance with the law. State officials said they needed more information, such as examples, to be confident of what Education would consider adequate for compliance with the law. State officials prefer evaluations instead of tests, according to an official at the Council of Chief State School Officers (CCSSO), because they expect evaluations to be less expensive, more flexible, and more acceptable to teachers and unions. Such evaluations might be done through classroom observations, examination of portfolios, and peer reviews. In March 2003, CCSSO held a conference attended by about 25 state officials and several Education officials to discuss the implementation of state evaluations. At that conference, state officials said

¹⁰National Center for Education Statistics, *Schools and Staffing Survey, 1990-2000*, "Number and Percent of Public School Special Education Teachers Who Teach Special Education Classes as Their Main Assignment or as Their Second Assignment" (2002).

Education’s lack of specificity was particularly a problem for evaluating middle and high school teachers who had not demonstrated subject area knowledge. According to our survey data, 23 of 37 state officials said they would have difficulty fulfilling the highly qualified requirement for middle school teachers and 14 anticipated difficulty for high school teachers. According to district survey results, 20 percent anticipated difficulties in meeting the federal criteria for middle school teachers and 24 percent for high school teachers. Furthermore, as table 2 shows, a significantly higher percentage of high-poverty districts reported they would have greater difficulty fulfilling the requirement for teachers, especially at the middle and high school levels, than would low-poverty districts.

Table 2: Estimated Percentages of Districts That Will Have Difficulty Meeting the Requirement for Highly Qualified Teachers by Grade Level and Poverty

Type of school	All districts	High-poverty districts	Low-poverty districts
Elementary	7	18	4
Middle/junior high	20	35	13
High	24	46 ^a	15

Source: GAO survey.

^aThe percentage estimate for high schools in high-poverty districts has a 95 percent confidence interval of plus or minus 11 percentage points.

State officials from the 8 states we visited said they could not determine the number of highly qualified teachers because the draft guidance was changing, not clear, or incomplete. Most, 32 of 37, state officials responding to our survey said they needed clear and timely guidance to help them meet the law.

State Data Systems Did Not Track Federal Criteria

Officials from 7 of the 8 states we visited told us they did not have data systems that would allow them to track teachers’ qualifications according to the federal criteria by every subject taught. Officials in one state projected that it would take at least 2 years before the state could develop and implement a system to track teachers by the federal criteria. State officials we visited said since their state certifications had not required some teachers to demonstrate subject area knowledge as required in the federal criteria, their information systems did not track such information. In written comments to our survey, for example, one official said, “Questions [related to counting teachers] are impossible to answer at this point because we not have finished the identification of those who need to be tested or evaluated.” Another respondent wrote that the data system

“was designed years ago for state certification purposes...[and] has not yet been updated to include all NCLBA criteria for teachers.” Other state officials also told us during our visits and through survey comments that their state certifications did not always require teachers to demonstrate subject area knowledge, so they did not have information on many teachers’ qualifications for this criteria. Another state official wrote, “[We] do not have data on teachers who were grand fathered in before 1991 or from out of state... who do not have subject matter competency.” Given the cost and time they thought it would take, some state officials expressed reservations about changing their data systems before Education provided complete guidance.

Some State Officials Reluctant to Report Teachers Not Highly Qualified

Officials in 6 of the 8 states visited were reluctant to report their certified teachers might not be highly qualified. Three of these officials equated their state certification with the federal criteria for a highly qualified teacher even though they differed. They expressed a reluctance to say that their state certification requirements did not produce a highly qualified teacher even though the requirements did not match all the federal criteria, such as demonstration of subject area knowledge. Additionally, state officials expressed concern about the morale of teachers who are state certified but who would not meet the federal criteria. They were also concerned about how teachers and unions would react to testing already certified teachers. For example, in 5 states we visited officials told us that the unions in these states objected to the testing of certified teachers.

State and District Officials Reported Many Conditions as Hindrances to Meeting the Law

Many state officials responding to our survey reported that teacher salary issues and teacher shortages were hindrances. State officials also identified other conditions such as few programs to support new teachers, lack of principal leadership, teacher training, and union agreements. District officials also cited teacher salary and teacher development issues as conditions that hindered them. Our district survey also shows that significantly more high-poverty districts reported some conditions as hindrances than low-poverty districts, and rural districts officials we visited cited hindrances specific to their small size and isolated locations. In our state survey, officials indicated that they needed more information from Education on professional development programs, best practices, and developing incentives for teachers to teach in high-poverty schools.

State Officials Cited Several Problems as Hindrances

Many state officials responding to our survey reported that pay issues hindered their ability to meet the requirement to have all highly qualified teachers. These issues included low salaries, lack of incentive pay programs, and a lack of career ladders for teachers. For example, 32 of 37 state respondents said low teachers' salaries compared to other occupations was a hindrance. Officials we visited said that because of the low salaries it has been more difficult to recruit and retain some highly qualified teachers, especially math and science teachers. Several occupations are open to people with a bachelor's degree in math and science, such as computer scientists and geologists. During the late 1990s, there was an increase in demand for workers with math and science backgrounds, especially in information technology occupations. Between 1994 and 2001, the number of workers employed in the mathematical and computer sciences increased by about 77 percent while the number of teachers increased by about 28 percent and total employment increased by about 14 percent. Furthermore, the math and science occupations have generally paid higher salaries than teaching positions. The U.S. Department of Labor's Bureau of Labor Statistics data indicate that in 2001 average weekly earnings was \$1,074 for mathematical and computer scientist positions and \$730 for teachers. Some research shows that teacher salary is only one of many factors that influence teacher recruitment and retention. For example, the American Association of School Administrators explained the relationship between pay and working conditions in a report on higher pay in hard-to-staff schools.¹¹ The report stated "How money matters becomes much clearer if salary is viewed as just one of many factors that employees weigh when assessing the relative attractiveness of any particular job, such as opportunities for advancement, difficulty of the job, physical working conditions, length of commute, flexibility of working hours, and demands on personal time. Adjusting the salaries upward can compensate for less appealing aspects of a job; conversely, improving the relative attractiveness of jobs can compensate for lower salaries."

Many state survey respondents also cited teacher shortages as a hindrance. Specifically, 23 of the 37 state officials reported teacher shortages in high-need subject areas—such as, math, science, and special

¹¹Cynthia Prince, *Higher Pay in Hard to Staff Schools: The Case for Financial Incentives*, American Association of School Administrators, June 2002.

education.¹² Additionally, 12 state officials reported a shortage in the number of new highly qualified teachers in subject areas that are not high need, and 12 reported that having few alternative certification programs hindered their efforts. Education experts have debated the causes and effects of teacher shortages. Some experts argue that the problem is not in the number of teachers in the pool of applicants but in their distribution across the country. Others argue that poor retention is the real cause of teacher shortages. As for alternative certification programs, they were established to help overcome teacher shortages by offering other avenues for people to enter the teaching profession. However, in 1 state we visited officials said the success of these programs had been mixed because the content and length of the programs varied and some alternative certification teachers were better prepared than others.

Although states have been facing teacher shortages in some subject areas for years, the new requirement for highly qualified teachers could make it even more difficult to fulfill the demand for teachers. The new law requires states to ensure that teachers only teach subjects for which they have taken a rigorous state test or evaluation, completed an academic major or graduate degree, finished course work equivalent to such degrees, or obtained advanced certification or credentialing in the subjects. Previously, states allowed teachers to teach subjects without such course work or credentials. From its Schools and Staffing Survey,¹³ the National Center for Education Statistics, within the Department of Education, reported that in 1999-2000, 14 to 22 percent of students in middle grades and 5 to 10 percent of high school students taking English, math, and science were in classes taught by teachers without a major, minor, or certification in the subjects they taught. Also, the report indicated that in the high school grades, 17 percent of students enrolled in physics and 36 percent enrolled in geology/earth/space science classes were taught by out-of-field teachers.

Some states also cited several other conditions that might hinder their ability to meet the requirement for highly qualified teachers. For example,

¹²In this report, when discussing a shortage of teachers in the high need subject area of special education, we are referring to a shortage of persons qualified to be special education teachers to teach core subjects to children with disabilities as defined in Section 602 of the Individuals with Disabilities Education Act Amendments of 1997.

¹³Department of Education, *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987-88 and 1999-2000, Statistical Analysis Report*, Schools and Staffing Survey, National Center for Education Statistics, 2002.

13 of the 37 state respondents reported few programs to support new teachers,¹⁴ and 9 reported large classes as hindrances. State respondents also cited work environment factors such as teacher performance assessments, a lack of principal leadership, and lack of school supplies and equipment as hindrances. See table 3 for more information on hindrances reported by state officials.

Additionally, 7 state officials who responded to our survey cited union agreements as a hindrance. Officials in 5 states that we visited said that the teachers' unions objected to testing currently certified teachers for subject area knowledge, and officials in 2 of these states also said that current teachers might leave rather than take a test. An official representing the American Federation of Teachers (AFT), an organization that represents teachers, school support staff, higher education faculty and staff, among others, said that AFT supports the federal definition for highly qualified teachers and incentive pay for teachers in high-need subject areas and that certified teachers should have a choice between taking a test and having a state evaluation to determine subject area knowledge. The National Education Association, an organization with members who work at every level of education, issued an analysis of the NCLBA that identified several changes it believes should be made in the law, including clarifying the requirement for highly qualified teachers. The union officials we spoke with from 2 states we visited said they also support the requirement for highly qualified teachers but expressed concerns about how their states would implement the legislation. One state union official said the current state process for certification requires multiple tests—more than is required in the legislation—and the union is concerned that the state will collapse the testing and streamline the teacher preparation process as part of its changes to meet the requirement. The union official from the other state said that his union was concerned because the state's approach for implementing the requirement for highly qualified teachers has become a moving target and this causes frustration for teachers.

¹⁴As provided in Title II of NCLBA, programs to support new teachers include teacher mentoring, team teaching, reduced class schedules, and intensive professional development.

Table 3: Number of States Reporting on Conditions That Hinder Their Ability to Meet the Requirement for Highly Qualified Teachers (Ranked from Highest to Lowest)

Number of states reporting this condition to be a hindrance^a (n=37)	Condition
32	Teachers' salaries low compared to other occupations.
23	Shortage in the number of teachers who meet the Title II requirement for highly qualified teachers in subject areas where there is high need.
21	Teachers' salaries low compared to teachers elsewhere.
18	Lack of incentive pay programs.
17	Lack of a career ladder for teachers.
14	Professional development programs not of sufficient duration to have an effect on teacher quality.
13	Few programs to support new teachers.
12	Few alternative certification programs.
12	Shortage in the number of new teachers who meet the Title II requirement for highly qualified teachers in subject areas that are not high need.
12	School lacks supplies and equipment.
11	Lack of leadership on the part of principals.
9	College of Arts and Science Departments do not work with college Education Departments to develop teacher preparation programs.
9	Large class sizes resulting in teacher retention problems.
9	Many currently employed teachers do not meet the Title II requirement for highly qualified teachers in areas that are not high need.
7	Teacher assessments not based on the Title II requirement for highly qualified teachers.
7	Weak training for teachers in the use of technology.
7	Union agreements inhibit implementing activities encouraged by Title II to develop highly qualified teachers.
7	Professional development programs not based on recent scientific research on teaching methods or subject matter.
4	State certification requirements not meeting the Title II requirement for highly qualified teachers.
3	Alternative certification programs not providing teachers with adequate teaching skills.
3	Teacher preparation programs not aligned with state subject content standards.
3	State and local laws and regulations inhibit implementing activities encouraged by Title II to develop highly qualified teachers.
2	Teacher preparation programs not providing teachers with adequate subject matter expertise.

Source: GAO survey.

^aThese numbers include states that reported these conditions as a moderate, great, or very great hindrance.

School Districts Reported Hindrances Similar to Those Reported by States and More High-Poverty Districts Reported Certain Hindrances

School district estimates from our survey show that, similar to state respondents, salary issues hinder districts' efforts to meet the requirement for highly qualified teachers. Almost 60 percent of district officials cited low teacher salaries compared to other occupations as a hindrance, with a significantly higher number of high-poverty than low-poverty district officials reporting this as a hindrance. During our site visits to 4 rural districts, officials said that their salaries could not compete with salaries offered in other occupations and locations. One official said that pay in the rural districts was low compared to teacher salaries in surrounding states. Both state and district officials also said that these salary conditions affect the recruitment and retention of highly qualified teachers.

Our survey estimates also show that conditions related to teacher development were hindering districts' ability to meet the highly qualified teacher requirement. The conditions reported by districts included (1) weak training for teachers in the use of technology (28 percent), (2) few alternative certification programs (18 percent), and (3) professional development programs that are not of sufficient duration to improve teacher quality (23 percent). Weak training programs can leave teachers unprepared to deal with all the challenges of teaching and lead to job dissatisfaction. Table 4 provides estimates of the percentages of districts reporting conditions that hinder their ability to meet the requirement for highly qualified teachers.

Table 4: Estimated Percentages of Districts Reporting on Conditions That Hinder Their Ability to Meet the Requirement for Highly Qualified Teachers (Ranked from Highest to Lowest)

Percent of all districts reporting this condition to be a hindrance^a	Condition
57	Teachers' salaries low compared to other occupations.
37	Teachers' salaries low compared to teachers elsewhere.
28	Training for teachers in the use of technology is weak.
25	Lack of incentive pay programs.
23	Professional development programs not of sufficient duration to have an effect on teacher quality.
19	Shortage in the number of teachers who meet the Title II requirement for highly qualified teachers in subject areas where there is high need.
18	Teacher preparation programs not providing teachers with adequate subject matter expertise.
18	Few alternative certification programs.
17	College of Arts and Science Departments not working with college Education Departments to develop teacher preparation programs.
16	Alternative certification programs not providing teachers with adequate teaching skills.
16	Few programs to support new teachers.
16	Lack of a career ladder for teachers.
16	Shortage in the number of new teachers who meet the Title II requirement for highly qualified teachers in low achieving schools.
15	Teacher preparation programs not aligned with state subject content standards.
14	School lacks supplies and equipment.
12	Teacher assessments not based on the Title II requirement for highly qualified teachers.
10	Union agreements that inhibit implementing activities encouraged by Title II to develop highly qualified teachers.
7	Lack of leadership on the part of principals.
7	Large class sizes resulting in teacher retention problems.
7	Professional development programs not based on recent scientific research on teaching methods or subject matter.
7	State certification requirements not meeting the Title II requirement for highly qualified teachers.
6	Many currently employed teachers not meeting the Title II requirement for highly qualified teachers in areas that are not high need.
4	State and local laws and regulations inhibit implementing activities encouraged by Title II to develop highly qualified teachers.

Source: GAO survey.

^aThese percentages include districts that reported these conditions as a moderate, great, or very great hindrance.

While the ranking of most of the hindrances reported by districts and states were similar, three conditions were reported among the top third of hindrances for districts but among the bottom third for states. Specifically, these conditions were (1) alternative certification programs do not provide teachers with adequate teaching skills, (2) teacher preparation programs do not provide teachers with adequate subject matter expertise, and (3) training for teachers in the use of technology is weak. The first two of these conditions relate to programs that are usually responsibilities of the state departments of education. States or districts can address the third condition, technology training. These conditions indicate areas in which states and districts can work together to improve programs and help meet the requirement for highly qualified teachers.

A significantly higher number of high-poverty districts than low-poverty districts identified some conditions as hindrances. As table 5 shows, in addition to teacher shortages and pay issues, a larger percentage of high-poverty districts cited few programs to support new teachers and few alternative certification programs, among others, as hindrances to meeting the requirement.

Table 5: Estimated Percentages of High- and Low-Poverty Districts with Significant Differences in the Hindrances to Meeting the Requirement

Condition	Percent of high-poverty districts	Percent of low-poverty districts
Teachers' salaries are low compared to other occupations.	75	50
Teachers' salaries are low compared to teachers elsewhere.	57	33
Lack of incentive pay programs.	32	17
Few programs to support new teachers.	30	6
Shortage in the number of teachers who meet the Title II requirement for highly qualified teachers in subject areas where there is a high need.	29	13
Shortage in the number of new teachers who meet the Title II requirement in low achieving schools.	26	10
Lack of career ladder for teachers.	25	8
Few alternative certification programs.	24	11
Teacher preparation programs do not provide adequate subject matter expertise.	24	13
Many currently employed teachers do not meet the Title II requirement in areas that are not high need.	13	4
Large class sizes resulting in teacher retention problems.	12	4
Lack of leadership on the part of principals.	12	3

Source: GAO survey.

Note: Each difference between high- and low-poverty districts in this table is significant at the 95 percent confidence interval.

During our site visits, officials from high-poverty districts told us they had great difficulty retaining teachers. For example, officials in one district said that although the district provided training for new teachers in the skills they needed, these teachers became more marketable after they completed the training and often left for higher paying teaching positions. According to these officials, the schools in this district did not always benefit from the district's training programs. High-poverty district officials also said they could not compete with surrounding, wealthier districts in teacher pay. Officials in these districts and at the American Association of School Administrators also said that some unions do not support the use of incentive pay for high-poverty schools because they believe that salary scales should be equal for all schools within a district.

Rural district officials we visited and also those who provided survey comments said they faced unusual hindrances because some of them were very small, isolated, or had only one or two teachers in total at some schools. During our site visits, some officials from rural districts also said

that they were facing teacher shortages because not enough teachers were willing to teach in rural districts. For example, one official in a large, rural state said that the state had only one university, which makes it difficult for teachers to obtain further course work to meet the federal criteria for subject area knowledge. Since many teachers in this state's rural districts had to teach more than one core subject, with limited access to subject area training, they may not meet the highly qualified criteria for all subjects they teach. One survey respondent also wrote, "Rural schools have to assign teachers to several subject areas at [the] secondary level. We do not have large numbers of students, and teachers have to wear more than one hat. Rural schools are also a long way from colleges and to require licensure in every subject they teach is ludicrous." In a 2001 report to Congress, Education estimated that 84 percent of 4-year institutions would offer distance education courses¹⁵ in 2002. Such courses may help address this hindrance.

States Say They Need More Information from Education and Education Plans to Work with States on Some Issues

As districts work to address the conditions that affect their ability to meet the new federal requirement, they look to their state officials for guidance and technical assistance. In turn, states look to Education for help. Many of the hindrances that state and district officials reported related to conditions that they could address such as teachers' salaries, the number of alternative certification programs, and certification requirements. However, states indicated they needed some additional information and assistance from Education. At least half of the 37 state respondents reported needing (1) information or other assistance to meet the requirement that professional development programs be based on recent scientific research and be of sufficient duration to have an effect on teacher quality, (2) information on best practices in the area of teacher quality, and (3) assistance in developing incentives for teachers to teach in high-poverty schools. Education's 2002-07 strategic plan identifies several steps it will take to work with states. Specifically, the strategies listed under the plan's goal for improving teacher and principal quality include supporting professional development in research-based instruction and encouraging innovative teacher compensation and accountability systems. Additionally, in December 2002, Education reorganized and established a new office to administer the Title II program.

¹⁵The Higher Education Act defines distance education as an educational process where the student is separated in time or place from the instructor.

To Help Teachers Meet the Requirement States Planned to Spend Most Title II Funds on Professional Development Activities, and Districts Will Spend Most on Recruitment and Retention Activities

To help meet the requirement for highly qualified teachers, state officials planned to spend most of their Title II funds on professional development activities, and district officials planned to spend a majority of their Title II funds on recruitment and retention activities. State and district officials planned to spend much larger amounts of other federal,¹⁶ state, and local funds than Title II funds on the activities authorized in the act. Generally, state and district officials told us they were continuing activities from previous years. The survey data also indicated high-poverty districts relied more on Title II funds for recruitment and retention activities than low-poverty districts. In addition, while the act requires districts to target their Title II funds to schools that meet certain criteria, until district officials know the number of highly qualified teachers and where they are located, they cannot fully comply with this requirement.

States Planned to Spend the Majority of Title II Funds on Professional Development

Generally, state educational agencies could use up to 2.5 percent of the state's Title II funds for authorized state activities.¹⁷ Twenty-four state officials responding to our survey planned to spend about 65 percent of their Title II funds on professional development activities to develop and support highly qualified teachers and principals. For example, professional development activities could help teachers enhance their subject area knowledge and complete state licensing requirements to meet the criteria for highly qualified teachers. During our site visits, state officials described their professional development activities as seminars, conferences, and various instructional initiatives. For example, in one state we visited, officials planned to hold a workshop to provide middle and high school math teachers with technology training so that they could incorporate interactive Web sites in their instruction. Generally, state officials said

¹⁶For example, districts must use 5 to 10 percent of their Title I-A funds in fiscal years 2002 and 2003 for professional development activities to ensure that teachers become highly qualified.

¹⁷State education agencies receive 5 percent of the total grant funds and can retain up to 1 percent of these funds for administrative costs. Of the remaining funds, 2.5 percent must be spent on subgrants to eligible partnerships and the remaining funds are to be used for authorized activities. We grouped the Title II activities into five categories: (1) accountability, (2) certification, (3) professional development, (4) recruitment and retention, and (5) technical assistance. Appendix II lists all 18 activities.

they planned to use Title II funds to continue activities that were begun in previous years.

While professional development activities were to receive the largest share of funds, survey results show state officials planned to also spend Title II funds on other activities cited in the act. Officials in 28 states planned to spend about 18 percent on technical assistance activities, such as providing information about the requirement for highly qualified teachers to districts via the state Web site. Certification activities received the smallest percentage of Title II funds—2 percent. These activities include efforts to promote certification reciprocity with other states and efforts to establish, expand, or improve alternative routes for certification. (See fig. 2.)

Figure 2: Planned Spending of Title II Funds by Reporting States



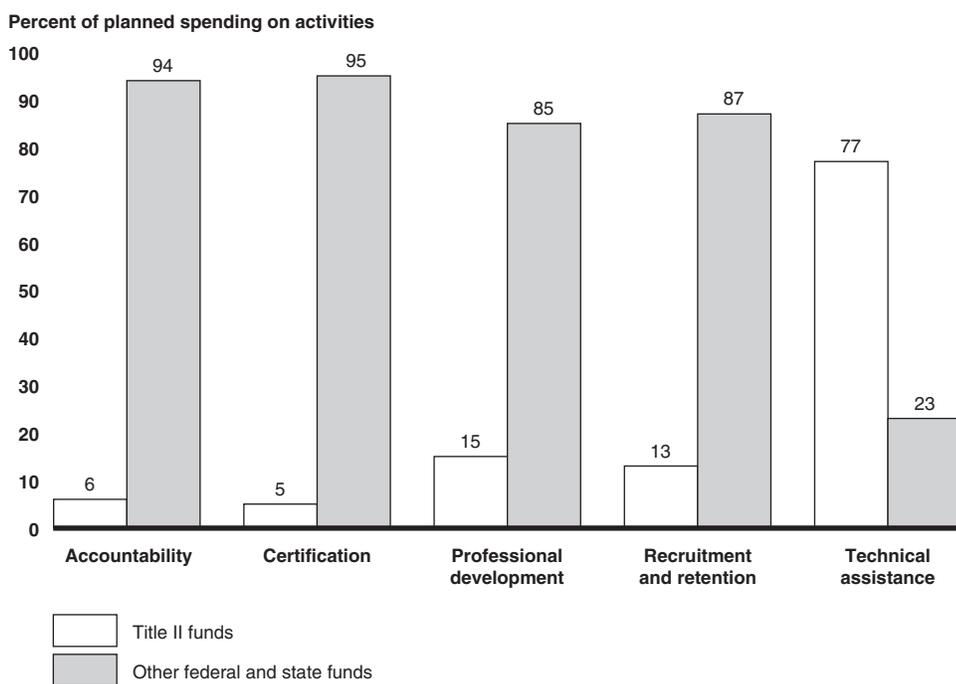
Source: The 37 states that responded to GAO survey.

Title II Funds Are a Small Part of Total Funds

State officials reported they planned to spend much larger amounts of other federal and state funds than Title II funds on nearly all of the authorized Title II activities. For example, states reported that 85 percent of the total funds they planned to spend on professional development activities would come from other federal and state funds. The one exception was technical assistance activities, where Title II funds

accounted for 77 percent of the total. (See fig. 3.) Providing technical assistance to districts is an important role for states. In our visits to districts, several officials said they needed more information and technical assistance from their state to understand and implement the law.

Figure 3: Sources of Funds for Planned Spending by States on Title II Activities



Source: The 37 states responding to GAO survey.

Districts Planned to Spend a Majority of Their Title II Funds on Recruitment and Retention Activities

Districts received about 95 percent of their state’s Title II funds for authorized activities.¹⁸ Based on our survey, district officials planned to spend an estimated 66 percent of their Title II funds on recruitment and retention activities and 34 percent on activities related to professional development. Class size reduction activities were the largest funded recruitment and retention activity and accounted for 56 percent of total Title II funds. In a majority of our site visits we learned that district officials used these funds to hire additional highly qualified teachers to

¹⁸Districts are to spend their Title II funds on 9 authorized activities that we grouped into 2 categories: (1) professional development and (2) recruitment and retention. Appendix III lists all 9 activities.

continue activities developed under the previous Class Size Reduction Program. Class size reduction activities may help improve teacher retention because, according to an Education report,¹⁹ teachers in small classes spend less time on classroom management and more time providing instruction, thus raising the teacher’s level of job satisfaction. While class size reduction activities can be seen as a retention tool, they may also increase the number of highly qualified teachers that need to be hired. This may be a problem for some districts and states. In fact, officials in one large state we visited said class size reduction activities presented a challenge by increasing the number of classes not being taught by a highly qualified teacher.

Additionally, district officials in our site visits said that they implemented or planned to implement a broad range of professional development activities. For example, one district had a teacher-coach program for its math and science teachers. This program used senior teachers as full-time coaches to assist less experienced teachers with instructional strategies and curriculum preparation. Other programs focused on math and reading, varied instructional strategies for different types of students, and use of technology. District officials in our site visits said most activities were in place prior to the act.

While all districts spent more on recruitment and retention activities than professional development, there were differences between high- and low-poverty districts. From our survey, we estimate that high-poverty districts planned to spend a significantly larger percentage of Title II funds on recruitment and retention and a smaller percentage on professional development activities than low-poverty districts. (See table 6.)

Table 6: Estimated Percent of Spending Title II Funds by Activities for All Districts, High-Poverty Districts, and Low-Poverty Districts

Activity	All districts	All high-poverty districts	All low-poverty districts
Professional development activities	34	23	41
Recruitment and retention/class size reduction	66	77	59

Source: GAO survey.

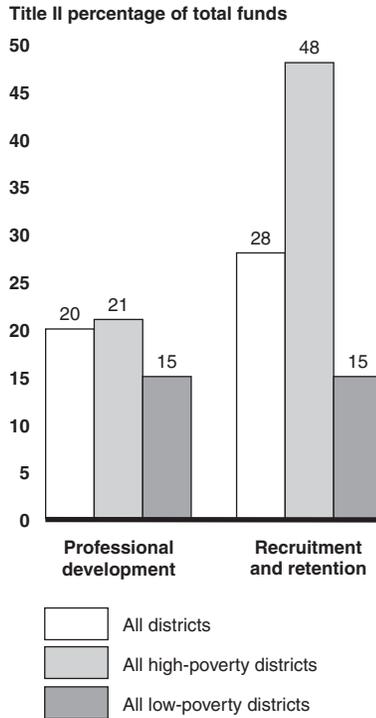
¹⁹U. S. Department of Education, *The Class-Size Reduction Program: Boosting Student Achievement in Schools Across the Nation, A First-Year Report*, September 2000.

Note: Each difference between high- and low-poverty districts in this table is significant at the 95 percent confidence interval.

Districts Planned to Spend Larger Amounts of Other Funds and Title II Funds Are a Larger Percentage of Total for High-Poverty Districts

From our survey, we estimated all districts planned to spend much larger percentages of other federal, state, and local funds than Title II funds on authorized activities but in high-poverty districts the share of the funds was lower. Overall, 80 percent of the total funds districts planned to spend on professional development activities came from other federal, state, and local funds. Title II funds represented a larger percentage of total funds spent on authorized activities for high-poverty districts than low-poverty districts. For example, in high-poverty districts Title II funds were 48 percent of the funds they planned to spend for recruitment and retention activities compared to 15 percent in low-poverty districts. There may be several reasons for these differences. For example, Title II allocated more funds to those districts with more high-poverty families, and low-poverty districts may have had more local funds to contribute to the total. Figure 4 shows the Title II percentage of total funds for professional development activities and recruitment and retention activities, for all, high-poverty, and low-poverty districts. A majority of district officials said they planned to fund activities that were begun in previous years.

Figure 4: Estimated Spending of Title II Funds as a Percentage of Total Funds by Activities for All Districts, High-Poverty Districts, and Low-Poverty Districts



Source: GAO district survey.

Approximately One-Third of All Districts Were Targeting Funds

We estimated about one-third of all districts (34 percent) were targeting their Title II funds as required by the act. The act requires districts to target funds to those schools (1) with the highest number of teachers who are not highly qualified, (2) with the largest class sizes, or (3) in need of improvement. There was little difference between the percentages of high- and low-poverty districts that targeted their funds or between urban and rural districts. For example, 29 percent of high-poverty districts and 30 percent of low-poverty districts reported targeting some of their Title II funds. Additionally, some district officials we visited said they did not target funds according to the criteria listed in the act but that they targeted funds in other ways such as to support math and science programs for teachers and for administrative leadership programs. It may be too early for district officials to fully implement this targeting requirement. Until they know the true number of teachers who are highly qualified, they cannot target the schools with the highest numbers of teachers who are not highly qualified.

Conclusions

Education officials have had to interpret and help states implement many new requirements established by the NCLBA, including the highly qualified teacher requirement. During this first year of implementation, state officials were still determining how they could assess whether their teachers met all the criteria and identifying steps they needed to take to meet the new requirement. Generally, state and district officials continued to be challenged by many longstanding hindrances and they continued to fund activities from previous years.

Education issued regulations and draft guidance to help states begin to implement the requirement for highly qualified teachers and has plans to help states with some of their challenges. However, state officials need more assistance from Education, especially about methods to evaluate current teachers' subject area knowledge. Without this information state officials are unsure how to assess whether their current teachers meet the highly qualified requirement. This would also help them accurately determine the number of teachers who are highly qualified and take appropriate steps, such as deciding on which activities to spend Title II funds and targeting Title II funds to schools with the highest numbers of teachers who are not highly qualified. It is important that states have the information they need as soon as possible in order to take all necessary actions to ensure that all teachers are highly qualified by the 2005-06 deadline.

Recommendation for Executive Action

In order to assist states' efforts to determine the number of highly qualified teachers they have and the actions they need to take to meet the requirement for highly qualified teachers by the end of the 2005-06 school year, we recommend that the Secretary of Education provide more information to states. Specifically, information is needed about methods to evaluate subject area knowledge of current teachers.

Agency Comments and Our Evaluation

We received written comments on a draft of this report from Education. These comments are reprinted in appendix IV. In response to our recommendation related to requirements for special education teachers, Education stated that the appendix of the Title I Final Regulations clarifies how the highly qualified requirements apply to special education teachers. Consequently, we modified the report to reflect this information and we withdrew this recommendation.

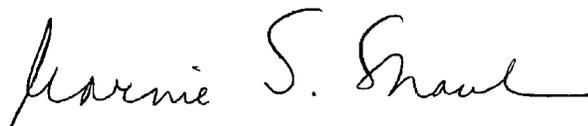
Education indicated it plans to take steps to address our recommendation on the need for information about methods to evaluate subject area

knowledge of current teachers. Education stated that it will continue to work with state officials and will actively share promising strategies and models for “high objective uniform State standard of evaluation” with states to help them develop ways for teachers to demonstrate subject area competency.

Also, Education commented that it views a “one-size fits all” approach to addressing many of the issues raised in the report as undesirable because states and districts will have to meet the requirement highly qualified teachers in a manner that is compatible with their teacher certification, assessment and data collection processes. Education stated that it will provide assistance wherever possible to help states meet the requirement. We generally agree that this is an appropriate approach.

Additionally, Education provided technical comments and we made changes as appropriate.

We are sending copies of this report to appropriate congressional committees, the Secretary of Education, and other interested parties. Copies will be made available to other interested parties upon request. In addition, the report will be available at no charge on GAO’s Web site at <http://www.gao.gov>. If you have any questions about this report, please call me at (202) 512-7215. Key contributors are listed in appendix V.



Marnie S. Shaul, Director
Education, Workforce, and
Income Security Issues

Appendix I: Scope and Methodology

In conducting our work, we administered a Web survey to the 50 states and the District of Columbia, and a separate Web survey to a nationally representative sample of 830 school districts, that included strata for high-poverty, low-poverty, rural, and urban districts. The response rate for the state survey was 71 percent and for the district survey 62 percent. The surveys were conducted between December 4, 2002, and April 4, 2003. We analyzed the survey data and identified significant results. See figure 5 for a geographic display of responding and nonresponding states.

Figure 5: State Survey Respondents



Source: The 37 states that responded to GAO survey.

The study population for the district survey consisted of public school districts contained in the Department of Education's Core of Common Data (CCD) Local Education Agency (LEA) file for the 2000-2001 school year. From this, we identified a population of 14,503 school districts in the 50 states and the District of Columbia.

Sample Design. The sample design for this survey was a stratified sample of 830 LEAs in the study population. This sample included the 100 largest districts and a stratified sample of the remaining districts with strata defined by community type¹ (city, urban, and rural) and by the district’s poverty level.² Table 7 summarizes the population, sample sizes, and response rates by stratum.

Table 7: Population and Sample by Stratum

Stratum number	Description	Districts in population	Districts in sample	Districts responding	Response rate
1	Largest 100 districts	100	100	64	64%
2	City, low poverty	648	120	76	63%
3	City, high poverty	210	94	35	37%
4	Urban, low poverty	5,264	135	87	64%
5	Urban, high poverty	648	120	79	66%
6	Rural, low poverty	6,515	135	87	64%
7	Rural, high poverty	1,118	126	83	66%
Total		14,503	830	511	62%

Source: GAO analysis of Education’s 2000-1 CCD data

Estimates. All estimates produced from the district sample in this report are for a target population defined as all public school districts in the 50 states and the District of Columbia for the 2002-03 school year. Estimates to this target population were formed by weighting the survey data to account for both the sample design and the response rates for each stratum. For our estimates of high- and low-poverty districts, we defined high-poverty districts as those with participation rates in the free and

¹“City” is defined as a central city of Consolidated Metropolitan Statistical Area (CMSA) or as a central city of a Metropolitan Statistical Area (MSA). “Urban” refers to Urban Fringe (an incorporated place, Census Designated Place, or nonplace territory within a CMSA or MSA of a city and defined as urban by the Census Bureau), to a large town (an incorporated place or Census Designated Place with a population greater than or equal to 25,000 and located outside a CMSA or MSA), or to an incorporated place or Census Designated Place with a population less than 25,000 and greater than 2,500 located outside a CMSA or MSA. A “rural community” is any incorporated place, Census Designated Place, or nonplace territory designated as rural by the Census Bureau.

²Poverty level was not available on the CCD data files; however, as a proxy for poverty, we stratified based on participation in the free/reduced student meals program. For sample selection, high-poverty districts are those districts having at least 60 percent participation in free/reduced meals programs. Less than 60 percent participation in this program identifies a district as a low-poverty district for stratification purposes.

reduced meals program of 70 percent or above. Low-poverty districts were defined as those with free and reduced meals program rates at 30 percent and below. One of the advantages of this approach was that it allowed for a sufficient number of cases in each category to conduct statistical analyses.

Sampling Error. Because we surveyed a sample of school districts, our results are estimates of a population of school districts and thus are subject to sampling errors that are associated with samples of this size and type. Our confidence in the precision of the results from this sample is expressed in 95 percent confidence intervals. The 95 percent confidence intervals are expected to include the actual results for 95 percent of the samples of this type. We calculated confidence intervals for our study results using methods that are appropriate for a stratified, probability sample. For the percentages presented in this report, we are 95 percent confident that the results we would have obtained if we had studied the entire study population are within plus or minus 10 percentage points of our results, unless otherwise noted. For example, we estimate that 34 percent of the districts target at least some funds to specific types of schools. The 95 percent confidence interval for this estimate would be no wider than plus or minus 10 percent, or from 24 percent to 44 percent.

Nonsampling Error. In addition to these sampling errors, the practical difficulties in conducting surveys of this type may introduce other types of errors, commonly referred to as nonsampling errors. For example, questions may be misinterpreted, the respondents' answers may differ from those of districts that did not respond, or errors could be made in keying questionnaire data. We took several steps to reduce these errors.

To minimize some of these errors, the state and district questionnaires were each pretested three times to ensure that respondents would understand the questions and that answers could be provided. To increase the response rate, sampled districts received two calls encouraging them to complete and return the questionnaire.

We also performed an analysis to determine whether some sample-based estimates compared favorably with known population values.³ We performed this analysis for 12 estimates providing information on

³This was possible because the CCD population file contains certain data elements for the universe of districts from which we drew our sample.

students, teachers, number of schools, and administrators that covered major segments those groups. For example, we did an analysis on all full-time equivalent classroom teachers but not on teachers of ungraded students, which is a very small proportion of all teachers. We used these values for the 511 sample respondents to produce sample estimates to the total population of all 14,503 districts. These estimated values, their associated 95 percent confidence intervals, and their true population values are presented in table 8.

Table 8: Sample Estimates Compared to Population Values

Description of estimate	Mean per district estimated from survey respondents	Lower bound of 95 percent confidence interval	Upper bound of 95 percent confidence interval	Mean per district for population
Students with Individualized Education Programs	455.6	391.8	519.5	424.8
Full-time equivalent classroom teachers	186.0	157.8	214.2	180.8
Students in Pre-Kindergarten to 12th grade	3,306.8	2,851.2	3,762.3	3,168.1
Total diploma recipients	198.5	169	227.9	201.4
Limited English proficient students	268.9	210.5	327.3	340.9
Schools in district	6.7	5.9	7.5	6.2
Local Education Authority administrators	4.2	3.6	4.8	3.7
LEA support staff	11.8	9.8	13.9	10.9
School administrators	10.4	8.9	11.9	9.7
School administrative support staff	17.3	14.6	19.9	16.5
Student support services staff	10.8	9.3	12.2	10.6
Instructional coordinators and supervisors	2.9	2.2	3.6	2.5

Source: GAO analysis of Education's 2000-1 CCD data

Note: LEAs are also known as school districts.

For 11 out of the 12 estimates we examined, the population value falls within the 95 percent confidence interval for the estimate, thus providing some indication that respondents to this survey reflect the 12 characteristics we examined in the population. Although these characteristics were selected because they might be related to other characteristics of district teachers and district administration, we do not know the extent to which the survey respondents would reflect the population characteristics for the specific questions asked on our survey. For example, we are not certain whether districts responding to the survey were further along in the implementation of Title II requirements than the districts that did not respond.

Our sample was not designed to produce geographical area estimates, and we did not explicitly stratify our sample by state or region. However, our sample was selected nationally and all regions are represented in our sample. The following table summarizes sample size and responses for 10 regions.

Table 9: Population and Sample by Region

Region number	State in each region	Districts in population	Districts in sample	Districts responding
1	CT, ME, MA, NH, RI, and VT	1,079	42	25
2	NY and NJ	1,281	49	27
3	DE, DC, MD, PA, VA, and WV	731	41	26
4	AL, FL, GA, KY, MS, NC, SC, and TN	1,049	113	76
5	IL, IN, MI, MN, OH, and WI	3,413	179	111
6	AR, LA, NM, OK, and TX	2,061	144	100
7	IA, KS, MO, and NE	1,744	54	30
8	CO, MT, ND, SD, UT, and WY	1,111	42	32
9	AZ, CA, HI, and NV	1,375	135	62
10	AK, ID, OR, and WA	659	31	22
Total		14,503	830	511

Source:

Note: for this table, we adopted the Department of Education’s region definitions as provided at <http://www.ed.gov/offices/OIIA/Regions>.

On the basis of the national distribution of our sample and on the result of our comparison of a set of survey estimates to known population values from the CCD file, we chose to include the survey results in our report and to produce sample based estimates to the total population of school districts in our study population.

We chose not to report the survey responses to questions asking about the number of highly qualified teachers because other information from the survey and our in-depth discussions with officials during our site visits indicated that the respondents could not accurately answer the question. For example, three of five officials who completed the survey but did not answer this question commented in the survey that they could not answer because they could not count the number of teachers. Additionally, one official who reported that 100 percent of the teachers were highly qualified and another who reported 94 percent, also commented that they were unable to count their teachers. During our site visits we learned that officials did not have know the criteria for some groups of teachers, did not have data systems to allow them to track teachers by class and

therefore, could not accurately determine how many teachers were highly qualified.

Other Methodology

We also visited 8 states with a range of characteristics that might affect their meeting Title II requirement for highly qualified teachers. Those states were California, Connecticut, Illinois, Iowa, Maryland, North Carolina, Delaware, and Wyoming. We visited and interviewed officials in 2 districts in each state, one of which was a high-poverty district, and one school in each district. We interviewed Department of Education officials, and officials and representatives from several professional organizations. We also reviewed the legislation, the regulations, and guidance as well as related reports and other relevant documents. We conducted our work between July 2002 and May 2003 in accordance with generally accepted government auditing standards.

Appendix II: Activities on Which States Can Spend Title II, Part A Funds

Table 10 lists our summaries of the authorized activities on which states can spend Title II funds and shows the five categories we used to group them.

Table 10: Title II, Part A State Activities

Category	Activity
Accountability	1. Developing systems to measure the effectiveness of professional development programs and strategies to document improvements in students' academic achievement.
	2. Ensuring that teachers use challenging state academic content standards, assessments, and student achievement standards to improve their teaching practices and their students' achievement.
Certification	3. Reforming teacher and principal certification.
	4. Reforming tenure and implementing tests for subject matter knowledge.
	5. Promoting license and certification reciprocity agreements with other states for teachers and principals.
	6. Providing programs that establish, expand, or improve alternative routes for state certification, especially for highly qualified individuals in the areas of mathematics and science.
Professional development	7. Conducting programs that provide support to teachers, such as those that provide teacher mentoring and use assessments that are consistent with student academic achievement standards.
	8. Providing professional development for teachers and principals.
	9. Developing or assisting local educational agencies (LEAs) in developing and using, proven innovative strategies for intensive professional development programs that are both cost effective and easily accessible.
	10. Encouraging and supporting the training of teachers and administrators to integrate technology into curricula and instruction, including training to improve their ability to use data to improve their teaching.
	11. Providing assistance to teachers to enable them to meet certification, licensing, or other Title II requirements needed to become highly qualified.
Recruitment and retention	12. Developing or assisting LEAs to develop, merit-based performance systems and strategies that provide pay differentials and bonus pay for teachers in academic subjects in which there is high need.
	13. Developing projects and programs to encourage men to become elementary teachers.
	14. Establishing and operating a statewide clearinghouse and programs for the recruitment, placement, and retention of teachers.
	15. Assisting LEAs and schools in recruiting and retaining highly qualified teachers, including specialists in core subjects.
	16. Developing or assisting LEAs to develop, teacher advancement initiatives that promote professional growth, and emphasize multiple career paths and pay differentiation.
Technical assistance	17. Fulfilling the state agency's responsibility to properly and efficiently carry out the administration of programs, including providing technical assistance to LEAs.
	18. Assisting LEAs to develop and implement professional development programs and school leadership academies for principals and superintendents.

Source: NCLBA Pub.L. No. 107-110, section 2113 (2002).

Appendix III: Activities on Which Districts Can Spend Title II, Part A Funds

Table 11 lists our summaries of the authorized activities on which districts can spend Title II funds and shows the two categories we used to group them.

Table 11: Title II, Part A District Activities

Category	Activity
Professional development	1. Providing professional development activities for teachers and principals that improve their knowledge of their core subjects and effective instructional strategies.
	2. Carrying out professional development activities designed to improve the quality of principals and superintendents .
	3. Carrying out teacher advancement initiatives to promote professional growth and to emphasize multiple career paths and pay differentiation.
	4. Carrying out programs and activities that are designed to improve the quality of teachers, such as professional development programs, merit pay programs, and testing teachers in the subjects they teach.
Recruitment and retention	5. Developing and implementing mechanisms to assist schools in effectively recruiting and retaining highly qualified teachers and principals.
	6. Developing and implementing initiatives to retain highly qualified teachers and principals, particularly in schools with a high percentage of low-achieving students; including programs that provide teacher mentoring and incentives.
	7. Carrying out programs and activities related to exemplary teachers.
	8. Developing and implementing initiatives to assist schools in recruiting and hiring teachers, including providing financial incentives, and establishing programs that train and hire special education and other teachers, recruit qualified professionals from other fields, and provide increased opportunities for minorities, individuals with disabilities and others.
	9. Hiring highly qualified teachers in order to reduce class size, particularly in the early grades.

Source: NCLBA Pub.L. No. 107-110, section 2123 (2002).

Appendix IV: Comments from the U.S. Department of Education



UNITED STATES DEPARTMENT OF EDUCATION

July 3, 2003

THE UNDER SECRETARY

Ms. Marnie Shaul
Director
Education, Workforce, and
Income Security Issues
United States General Accounting Office
Washington, D.C. 20548

Dear Ms. Shaul:

This is in response to your draft report entitled "No Child Left Behind Act: Complete Guidance and More Information Would Help States Determine How Many Teachers are Highly Qualified" (GAO-03-631). We have carefully reviewed the document and appreciate the opportunity to provide comments.

The U.S. Department of Education recognizes that States, districts, and schools face many implementation issues as they strive to meet the teacher qualification standards created in the *No Child Left Behind Act of 2001*. The law sets forth basic requirements for teachers, but provides States considerable flexibility in such areas as determining what constitutes full State certification and what is a "high objective uniform State standard of evaluation" of teacher competence. We recognize it is important to provide timely and informative guidance, while respecting each State's ability to develop its own systems for implementing the law.

The report recommends that the Secretary provide complete guidance and more information to the States. We have been working with States to provide accurate and timely assistance, recognizing that in these early stages of implementation, issues take time and attention. The Department released, on December 2, 2002, Title I Regulations and, on December 19, 2002, Title II – A Non-Regulatory Guidance. In response to requests for clarification about how the "highly qualified" requirements apply to special education and limited English proficient (LEP) teachers, guidance included in the Appendix of the Title I Final Regulations clarifies that both special education and LEP teachers "who are providing instruction in core academic content areas must meet the highly qualified requirements of ESEA." This guidance further clarifies that "special educators who do not directly instruct students on any core academic subject or who provide only consultation to highly qualified teachers of core academic subjects on behavioral supports and interventions and selecting appropriate accommodations do not need to meet the same "highly qualified" subject-matter competency requirements that apply under NCLB to teachers of core academic subjects."

We continue to work with the Council of Chief State School Officers' INTASC (Interstate New Teachers Assessment and Support Coalition) to discuss teacher quality issues at several national meetings. The Department convened all State Title II Directors to discuss teacher quality issues at a national meeting on June 12, 2003. We are in the process of sending out teacher quality

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support teams, establishing a technical assistance and evaluation support plan, and expanding our guidance on issues that are still outstanding.

Additionally, the Department has funded the new “What Works Clearinghouse” to identify research-based best practices related to, among other things, teacher training and teaching in subject areas. Many States have asked for our help, and we have provided and will continue to provide assistance. We engage in conversations daily assisting States in meeting the highly qualified teacher goals of NCLB.

Demonstration of subject area competency is a key requirement in the highly qualified teacher provisions. Each State has the option within the law to develop a way for veteran teachers to demonstrate that competency. The Department has not issued written guidance on the “high objective uniform State standard of evaluation” (HOUSSE) requirements, but we have provided large-scale technical assistance at various meetings across the country, such as at a recent meeting of the National Association of State Directors of Teacher Education and Certification (NASDTEC). We continue to work with State officials by offering technical assistance on ensuring that a State’s HOUSSE system reflects the requirements in the law. Several States have developed draft procedures and have asked the Department for feedback and comments. As we continue to learn more about promising strategies and models for HOUSSE, the Department will actively share these with States.

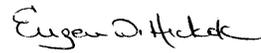
Additionally, the report identifies many issues that are outside of the scope of the federal requirements, and that are matters of State and local policy. A Federal “one size fits all” approach would be undesirable and counterproductive, as States and districts strive to meet the requirements of the statute in a manner that meshes with the teacher certification, teacher assessment, and data collection systems of each individual State. The Department will continue to provide technical assistance wherever possible, in order to assist States in the development of their plans.

There are significant resources available to States to meet the “highly qualified teacher” requirements. However, the report identifies only the amount of Title II-A funds that districts and States may use to help teachers become highly qualified. The report should instead note that, under NCLB, districts must use between five and ten percent of their Title I-A funding for this purpose, and that they also have available Title V and other Title I-A funds. Without that inclusion, the report significantly understates the Federal investment available to help districts and schools meet the requirements.

The No Child Left Behind Act also provides LEAs with flexibility to consolidate certain Federal funds to carry out activities, including programs that improve teacher quality, that best meet their own needs. For example, under the State and Local Transferability Act, an LEA not identified as being in need of improvement or corrective action under Title I may transfer up to 50 percent of its formula allocation under the Improving Teacher Quality State Grants, Educational Technology State Grants, State Grants for Innovative Programs, and Safe and Drug-Free Schools State Grants programs to its allocation under: (1) any of the other authorized programs; or (2) Part A of Title I.

We encourage States to act boldly as they develop plans to meet the requirements of the law. Highly qualified teachers are vital to student achievement and realizing the promise and potential of NCLB. The law recognizes this fundamental principal, and the Department of Education does as well. We look forward to continuing our work assisting States in implementing these important goals.

Sincerely,



Eugene W. Hickok

Appendix V: GAO Contacts and Staff Acknowledgments

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In addition to those named above, the following individuals made important contributions to this report: Susan Higgins, Anjali Tekchandani, David Garten, Joel Grossman, Richard Kelley, Mark Ramage, Minnette Richardson, Susan Bernstein, and Jeff Edmondson.

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